yumeng ma

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Education

Brown University   Providence, RI | September 2022 – May 2024 [expected]
Sc.M. in Computer Science (Human-Computer Interaction)
GPA 4.0/4.0
Graduate Coursework: Designing Humanity Centered Technology, UI/UX, Human-Computer Interaction Seminar, Collaborative Robotics

Arizona State University   Tempe, AZ | August 2019 – May 2022
B.S. in Computer Science with honors
B.S. in Psychology with honors
Summa Cum Laude
GPA 4.0/4.0
Thesis: "Assessing Exhibit Interaction through Bridging the Connections Between Biometrics and Traditional Tools"

Publications

Zainab Iftikhar, **Yumeng Ma**, and Jeff Huang. "Together but not together": Evaluating Typing Indicators for Interaction-Rich Communication. CHI 2023. ACM.

Ian Gonsher, **Yumeng Ma**, Ivan Pineda-Dominguez, Matthew Lee, and Yuxin Han. The Mixed Reality Passthrough Window: Rethinking the Laptop Videoconferencing Experience. IHIET 2023.

Ian Gonsher, Asad Khan, Ray Sun, **Yumeng Ma**, et al. Integrating Interfaces into Furniture: New Paradigms for Ubiquitous Computing, Mixed Reality, and Telepresence within the Built Environment. MAB 2023. ACM. (to appear)

Research & Project Experience

University of California Los Angeles (UCLA)'s HCI Lab, *Research Intern*   Los Angeles, CA | April 2023 – Present
- Grounding large language model-generated generic outputs to realistic, practical, and actionable AR guidance.

Mixed Reality Window Project at Brown University, *Design Researcher*   Providence, RI | September 2022 – Present
- Introducing a new paradigm for the integration of augmented reality into laptop design.
- Creating casing for laptop model using CAD and 3D printing.
- Coding an immersive AR video conferencing software using React, Twilio Video, and MediaPipe API to manipulate different displays of segmentation allowing local users to interact with remote users more easily and seamlessly.

Robotic Arm Manipulation Project at Brown University, *Student Researcher*   Providence, RI | February 2023 – May 2023
- Performed text-driven robot grasp tasks with CLIP-feature field in NeRF.

Smart Cane Project at Brown University, *Design Researcher*   Providence, RI | September 2022 – December 2022
- Developed cane prototypes that collect biofeedback, increase mobility, and reduce isolation for seniors.
- Used C++ to integrate emergency button and SPO2 sensors to Arduino Nano and MIT App Inventor.

Distributed Research Experiences for Undergraduate (DREU) at Brown University's HCI Lab, *Research Intern*
                                                           Providence, RI | June 2022 – September 2022
- Designed interactive typing indicators using JavaScript, socket.io, and node.js to re-evaluate how users communicate over texting.
- Conducted mixed method studies (surveys and in-depth interviews) and found these indicators increase user's perceived co-presence in written communication.

Science of Learning and Educational Technology (SoLET) Lab at Arizona State University, *Research Assistant*

Tempe, AZ | January 2022 – August 2022

- Conducted interdisciplinary research and technology development to enhance educational practice and make learning more accessible to underrepresented groups.

NASA Psyche Mission at Arizona State University, *Collaborator*   Tempe, AZ | August 2021 – May 2022

- Developed a remote exhibit interactive web app allowing users to explore the Psyche Spacecraft model.
- Created UI designs through Figma and coded element interactions via HTML, CSS, and JavaScript.
- Wrote algorithms to collect and sort statistical outputs of usage data.
- Conducted usability testing and found the app significantly increased public engagement.

Awards & Honors

2023	Tapia Celebration of Diversity in Computing Conference (Brown CS In-Person Student Scholarship)
2019 – 2023	Microsoft Disability Scholarship
2022	Google CS Research Mentorship Program (CSRMP)
2022	Virtual Grace Hopper Celebration (GHC) Scholarship (AccessComputing Sponsorship)
2019 – 2022	New American University – President's Award, Arizona State University
2019 – 2022	Ira A. Fulton School of Engineering Dean's List, Arizona State University

Teaching Experience

Information Assurance (CSE 365) at Arizona State University, *Teaching Assistant* Tempe, AZ | January 2022 – May 2022

Extracurricular & Work Activities

Computer Science Diversity Committee at Brown University, *Master's Representative*   September 2022 – Present

AccessComputing, *Member*   December 2021 – Present

Education at Work, *Microsoft Support / Xbox Advocate*   Tempe, AZ | December 2020 – August 2021

- Assisted Microsoft's small and medium sized business clients with various Microsoft products including Teams, SharePoint, Office 365, Exchange, and Windows.
- Focused on providing personalized, predictive, and proactive user experience support to Xbox customers across all gaming endpoints.

Skills & Interests

Design: UI design, Design thinking, 3D modeling and rendering, Concept sketching, Wireframing, Figma, Accessible design, Interactive process, User flows, Design critique, Prototyping
Technical: Microsoft Office Suite, Adobe Creative Suite, Axure, Fusion 360
Programming: Java, Python, C, C++, C#, Unix Shell
Web Development: HTML, CSS, JavaScript, React
Data Science: Jupyter Notebook, MySQL, MATLAB
Hardware: Arduino, Raspberry Pi
Research: Task analysis, Persona hypotheses, Data analysis, A/B testing and iteration, Cognitive walkthrough, User Testing, Mixed Method Analysis
Language: Chinese (bilingual proficiency), Spanish (proficient), American Sign Language (elementary proficiency)
Other: Art and Poetry

Work Eligibility

U.S. Citizen

UPDATED June 2023